

Pietro Valente

Lisbon, Portugal

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SUMMARY

Software Engineer with over 2.5 years of professional experience in telecom and networking, skilled in developing and optimizing software solutions.

SKILLS

- **Programming languages:** C++/C, Java, SQL, Python, HTML/CSS, MATLAB, Kotlin.
- **Technologies:** 5G, HTTP/HTTPS, TCP/IP, Multithreading/Concurrency, Jenkins, Docker.
- **Tools:** Git, GitHub/Gerrit, VS Code, JUnit, CppUnit, Jira, MySQL/PostgreSQL, Eclipse.

EXPERIENCE

- Nokia** **Lisbon, Portugal**
C++ Software Engineer Jan 2024 - present
- Implemented C/C++ features for digital signal processing and code optimization to enhance the quality and capacity of RAN product at L1 level.
 - Used CppUnit and JSON to create unit and system component tests, improving product reliability and stability.
 - Analyzed, through internal tools, bugs and issues identified by internal tests or reported by external clients to find solutions.
- Politecnico di Milano, Rai, RaiWay** **Milan, Italy**
ICT/Software Engineer Oct 2022 - Dec 2023
- Developed new features and fixed bugs in C++ by adapting open-source code for 5G broadcast reception, optimizing it for mobile video streaming using multithreading to ensure real-time performance.
 - Created Java and MATLAB scripts for data parsing and analysis to provide feedback on project progress.
 - Implemented C/C++ and Python programs to simulate real-life data transmission/reception environments.

EDUCATION

- Politecnico di Milano** **Milan, Italy**
MSc - ICT engineering, business and innovation Sep 2021 - Oct 2023
Final grade: 110/110
- Concentrations: Recommender Systems, Software Engineer, Advanced Databases, Platform Thinking, Management.
- University of Padua** **Padua, Italy**
BSc - Computer Science engineering Sep 2018 - Sep 2021
Final grade: 109/110
- Concentrations: Telecommunications, Computer Networks, Embedded Systems, Operating Systems.
- Metropolia University** **Remote**
Course - Applied Web Application Security Feb 2021 - May 2021
Final grade: 97/100
- Concentrations: Cyber attacks, SQL-injections, XSS and CSRF attacks.

PROJECTS

- Cache for HLS live streaming - [GitHub Link](#)** Jan 2023 - Jun 2023
- Developed a cache in C/C++ for HLS live streaming over broadband with customizable delay, enhancing streaming stability and efficiency through a dynamic data structure, using multithreading to ensure smooth video playback.
- Data-dRiven PrEdictive FArMing in Telengana (DREAM) - [GitHub Link](#)** Sep 2021 - Mar 2022
- Created a RASD, Design Document (DD) and Java implementation using Apache Tomcat on Eclipse, along with an Integration Test Deliverable (ITD) using JUnit, for a project aimed at enhancing agricultural production in Telangana.
- Voice Activity Detection - [GitHub Link](#)** Apr 2021 - Aug 2021
- C++ script designed to enhance audio quality by intelligently removing background noise during silent parts, using advanced speech segment detection algorithms.

CERTIFICATIONS

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| Udemy Nov 2024
<i>Learn Multithreading with Modern C++</i> | Udemy Sep 2024
<i>The Git & Github Bootcamp</i> | Udemy Jun 2024
<i>Learn Advanced Modern C++</i> |
| Udemy Dec 2022
<i>Java 8 EE Developer</i> | Udemy Aug 2020
<i>Python 3.11 Complete Guide</i> | |